

DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER PROTECTION BUREAU  
Metcalf Building, Helena, Montana 59620  
(406) 444-3080

**ENVIRONMENTAL ASSESSMENT (EA)**

**Division/Bureau:** Permitting & Compliance Division, MGWPCS Permits;

**Project or Application:** Stoney Brook Condominium Village; MTX000197

**Description of Project:** The permit authorizes the discharge of treated residential-strength wastewater from a total of 64 condominium units and one community center. Phases I and II consist of 44 existing and occupied units, plus the community center. Phase III is proposed and will consist of 20 condominiums. The Stoney Brook Condominium Village (SBCV) is located 7.2 miles south of Montana City. The property is situated between Highway 282 and Interstate 15. Wastewater collection for each phase begins with 1,500-gallon septic tanks that are shared between every two units. Wastewater is conveyed through the collection piping to a recirculation tank. Level II wastewater treatment will occur in a recirculating sand filter (RSF). Following treatment, the effluent will flow into a pump tanks(s), followed by a totaling flow meter(s), and enter a dose tank where it is pressure-dosed to the subsurface drainfield area. This type of wastewater treatment system is applicable to each of the three phases of this development (Outfall 001). The average design flow for existing Phase I and II is 12,112 gallons per day (gpd), and proposed Phase III is 6,000 gpd, for a total average design flow of 18,112 gpd. A source specific 380-foot ground water mixing zone is been determined by the Department to be applicable at this outfall. The location of Outfall 001 (for Phase I, II and III) is 46° 31' 37.3" North Latitude and 111° 56' 28.8" West Longitude. Discharge is to ground water, which is classified "Class I" by the Montana Groundwater Quality Standards.

**Benefits and Purpose of Proposal:**

Adequate treatment of residential-strength wastewater before discharging to ground water.

**Description and analysis of reasonable alternatives whenever alternatives are reasonably available and prudent to consider:**  
None

**Listing and appropriate evaluation of mitigation, stipulations and other controls enforceable by this or another government agency:**  
See Statement of Basis

**Affected Environment and Effects from the Proposed Project:**

<b><u>Key to Rank</u></b>	
NA	<i>Not applicable</i>
N	<i>No effects</i>
B	<i>Potentially beneficial effectA</i>
	<i>Potentially adverse effects</i>
M	<i>Corrective action required</i>
P	<i>Additional permits will be required</i>

Rank	Consideration	Remarks
<b>PHYSICAL AND BIOLOGICAL ENVIRONMENT</b>		
N	1. SOIL SUITABILITY, TOPOGRAPHIC AND/OR GEOLOGIC CONSTRAINTS (soil moisture, unstable soils or geologic conditions, steep slopes, erosion potential, subsidence potential, seismic activity)	Discharge will increase moisture in the unsaturated zone. There are no known unique geological features at the site. There is no indication that the site chosen for the wastewater system will become unstable due to construction and proper operation of the system.
N	2. HAZARDOUS FACILITIES (power lines, hazardous waste sites, distances from explosive and flammable hazards including chemical/petroleum storage tanks, underground fuel storage tanks and related facilities such as natural gas storage facilities and propane tanks)	
N	3. AIR QUALITY (effects to or from project, dust, odors, emissions)	No significant impacts have been determined.
N	4. GROUNDWATER RESOURCES & AQUIFERS (quality/nondegradation, quantity/reliability, distribution, uses/rights, number of aquifers, mixing zones)	There will be no significant degradation outside of the mixing zone for Outfall 001 (see Statement of Basis for details and calculations). The quality of the shallow ground water and the nearest hydraulically downgradient surface water shall be monitored for this permit cycle.
N	5. SURFACE WATER RESOURCES (quality/nondegradation, quantity/reliability, distribution, uses/rights, storm water controls, source of community supply, community treatment, mixing zones)	The nearest hydraulically downgradient (N55°W) surface water from Outfall 001 is the unlined fire suppression pond. This pond is approximately 413 feet from the subsurface drainfield area. Prickly Pear Creek is approximately 600 feet hydraulically downgradient (northwest) of the drainfield area. Impacts to surface waters were determined non-significant (see Statement of Basis for details and calculations).
N	6. VEGETATION AND WILDLIFE SPECIES AND HABITATS, INCLUDING FISHERIES AND AQUATIC RESOURCES (threatened, endangered, sensitive species, prime habitat, population stability, potential for human wildlife conflicts, effectiveness of post-disturbance plans)	Nutrients, as well as chlorophyll-a algae shall be monitored in the nearest hydraulically downgradient surface water at the unlined fire suppression pond for at least the first permit cycle.
N	7. UNIQUE, ENDANGERED, FRAGILE, OR LIMITED ENVIRONMENTAL RESOURCES (biologic, topographic, wetlands (within one mile), floodplains (within one mile), scenic rivers, natural resource areas, etc.)	The wastewater treatment system and Outfall 001 is topographically at least 25.6 feet above Prickly Pear Creek floodplain based on ground elevations at MW2 (3297.06') and MW3 (3271.50'). Flood potential is considered "low to moderate" in this general area (FEMA).
N	8. LAND USE (waste disposal, agricultural lands [grazing, cropland, forest lands, prime farmland], recreational lands [waterways, parks, playgrounds, open space, federal lands], access, commercial and industrial facilities [production & activity, growth or decline], growth, land-use change, development activity)	The original topography in the area for the proposed Phase III has been disturbed by historic placer mining operations. The area has recently been graded to accommodate the drilling and installation of MW2.
N	9. HISTORICAL, CULTURAL, & ARCHEOLOGICAL (sites, facilities, uniqueness, diversity)	Should cultural materials be inadvertently discovered (particularly for proposed Phase III) the permittee should contact the State Historical Preservation office so the site may be investigated.
N	10. AESTHETICS (visual quality, nuisances, odors, noise)	Septic tanks serve every two units and are below ground surface. The recirculating sand filter treatment systems will discharge effluent from outfall 001 to the subsurface drainfields, neither of which will be visible and therefore,

		will not create aesthetic issues.
N	11. DEMANDS ON OR CHANGES IN ENVIRONMENTAL RESOURCES INCLUDING LAND, WATER, AIR, OR ENERGY USE (need for new or upgraded energy sources, potential for recycling, etc.) { See (4), (5), and (8). }	Potable water will be provided via two onsite community supply wells that will be completed in the deeper bedrock aquifer. These wells are located in the north (PWS2) and southwest (PWS1) portions of the property, respectively.

Rank	Consideration	Remarks
<b>IMPACTS ON THE HUMAN POPULATION</b>		
NA	12. CHANGES IN DEMOGRAPHIC CHARACTERISTICS (population quantity, distribution and density, rate of change)	The project is for a new and an existing residential retirement community development.
N	13. GENERAL HOUSING CONDITIONS (quality, quantity and affordability)	Phase I consists of 28 condominium lots and one community center. Phase II consist of 16 condominium lots. Proposed Phase III will consist of 20 condominium lots.
NA	14. POTENTIAL FOR DISPLACEMENT OR RELOCATION OF BUSINESS OR RESIDENTS	
N	15. PUBLIC HEALTH AND SAFETY (medical services and facilities, police, fire protection and hazards [see (2)], emergency medical services [see (8), LAND USE for waste disposal])	
N	16. LOCAL EMPLOYMENT AND INCOME PATTERNS (quantity and distribution of employment, economic impact)	
NA	17. LOCAL AND STATE TAX BASE AND REVENUES	
NA	18. EFFECTS ON SOCIAL STRUCTURES AND MORES (social conventions/standards of social conduct), DEMANDS ON SOCIAL SERVICES (law enforcement, educational facilities [libraries, schools, colleges, universities], welfare, etc.)	
N	19. TRANSPORTATION NETWORK (condition and use of roads, traffic flow conflicts, rail, airport compatibility, etc.)	
N	20. CONSISTENCY WITH LOCAL ORDINANCES, RESOLUTIONS, OR PLANS (conformance with local comprehensive plans, zoning or capital improvement plans)	

NA	21. REGULATORY RESTRICTIONS ON PRIVATE PROPERTY RIGHTS ( <i>Are we regulating pursuant to a police power? Does the Agency action restrict the use of the property beyond the minimum necessary to achieve compliance with the Act? What are the costs of such additional restrictions resulting from proposed permit conditions? Are there other, less restrictive ways of achieving the same goal? See your assigned legal counsel for assistance preparing this section. [See the Private Property Assessment Act checklist accompanying this permit for details.]</i> )	
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**Other groups or governmental agencies contacted or which may have overlapping jurisdiction:**

Public Water Supply, Subdivisions Bureau

**Public Involvement:**

Thirty-day public comment period

**Individuals or groups contributing to this EA:**

TMDL group for the DEQ

**Summary of Issues:**

See Statement of Basis

**Summary of Potential Effects:**

See Statement of Basis

**Cumulative Effects:**

There are no unresolved analyses for cumulative effects.

**Recommendation:**

Issue Ground Water Discharge permit

**Recommendation for Further Environmental Analysis:**☐ Prepare an EIS☐ Prepare a more detailed EA☒ No further analysis

EA prepared by: Pat Potts

Date: October 8, 2008

**Bureau Check-off**

AWMB \_\_\_\_\_

CSB \_\_\_\_\_

EMB \_\_\_\_\_

IEMB \_\_\_\_\_

WPB \_\_\_\_\_

Other \_\_\_\_\_

**Approved by:**

Jenny Chambers, Bureau Chief  
 Water Protection Bureau  
 Permitting & Compliance Division

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(Print name and title)

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(Signature)

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(Date)